

**Case Study:**  
Perth, WA

## Investigation finds after cooler, fuel pump and injector issues

A small vessel was in for drydocking. The CAT 3208 engines were reported to be running fine, but smoking, so we were asked to investigate this while we were carrying out the standard service.

### Workscope

The team put a scope of work together and informed the client we would adhere to the OEM guidelines which involved testing the fuel pumps at a specialist facility.

In pulling out the injectors and undertaking a borescope inspection, we observed light corrosion inside the liner walls. We eventually found a cracked aftercooler adapter, which had been pulling in water. Additionally, one of the fuel pumps that wasn't operating properly had severe cam lobe wear and failed testing; and all injectors were in need of replacing.

### Result

After the investigation, we requoted to repair or replace everything we had found and the client subsequently decided to remove all of the coolers off the engine, a variation of the scope that required us to provide more man power to meet timescale demands.

Once all the coolers were serviced, they were pressure tested, returned to the vessel, installed and a successful sea trial carried out.

